QUASIMEME

Quality assurance of information for marine environmental monitoring

Certificate of Analysis

PSP shellfish toxins

REFERENCE MATERIAL

BT12 sample 25

WAGENINGEN
UNIVERSITY & RESEARCH

Certificate of Analysis BT12 25

General Information

In this report an overview is given of analytical data for this sample collected in our proficiency testing program. The consensus values are calculated using a robust statistical model. With this NDA model, the mean and standard deviation are calculated using all reported data when at least 4 results are left after removal of reported 'lower than' (<) and 0 (= zero) values. No outliers are removed.

This report is divided into two sections: Consensus Values and Indicative Values. The division is made on the reliability of the data. Consensus Values are based on at least 8 results and a maximum relative uncertainty of 6.25%. Indicative Values are based on a maximum relative uncertainty of 35% and a minimum of 4 and maximum of 7 results, or a relative uncertainty greater than 6.25% when there are at least 8 results.

For each determinand the following parameters are given: mean, standard deviation, coefficient of variation, number of results, median, MAD (Median of Absolute Deviation), the uncertainty of the mean (consensus or indicative) value and the relative uncertainty.

The results of each determinand is expressed on a wet weight basis.

Sample information

QUASIMEME reference materials cover a range of natural Shellfish toxins species from contaminated waters from the North Sea and/or Mediterranean.

This BT12 sample 25 of Blue mussel (Mytilus Edulis) from CEFAS Weymouth, UK is prepared for the QUASIMEME proficiency programs. The results on which the values in this report are based were taken from the periods given in the following table.

Year.Round	Program	Sample Round Id
2024.1	BT12	QST357BT
2022.1	BT12	QST322BT

Consensus Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
STX	µmol/kg	1.28	0.217	16.9	77	1.29	0.142	0.031	2.41
GTX-2	µmol/kg	1.11	0.153	13.8	23	1.13	0.078	0.040	3.60
GTX-5	µmol/kg	0.197	0.040	20.2	52	0.200	0.023	0.007	3.51
Total toxicity	µgSTXdiHCleq./kg	906	186	20.5	79	928	113	26.1	2.89
GTX-2,3	µmol/kg	1.22	0.271	22.3	55	1.27	0.198	0.046	3.76
C-1,2	µmol/kg	0.897	0.312	34.7	54	0.908	0.202	0.053	5.91

Indicative Values BT12

Method: Toxins(SF) - BT12

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
NEO	µmol/kg	0.090	0.099	109.8	15	0.184	0.094	0.032	35.4
GTX-1	µmol/kg	0.143	0.079	55.7	10	0.186	0.033	0.031	22.0
GTX-3	µmol/kg	0.362	0.087	24.0	22	0.377	0.049	0.023	6.38
GTX-4	µmol/kg	0.063	0.034	54.1	7	0.070	0.020	0.016	25.5
C1	µmol/kg	0.849	0.369	43.4	20	0.899	0.246	0.103	12.1
C2	µmol/kg	0.234	0.121	51.8	19	0.259	0.069	0.035	14.9
dc-STX	µmol/kg	0.118	0.059	49.8	49	0.135	0.043	0.010	8.90
dc-GTX2	µmol/kg	0.125	0.082	65.6	11	0.142	0.055	0.031	24.7
dc-GTX3	µmol/kg	0.021	0.005	22.6	4	0.023	0.003	0.003	14.1
GTX-1,4	µmol/kg	0.349	0.274	78.5	25	0.437	0.203	0.069	19.6
dc-GTX-2,3	µmol/kg	0.088	0.068	77.4	16	0.137	0.045	0.021	24.2